PROC. ENTOMOL. SOC. WASH.
84(2), 1982, pp. 281–296

A REVISION OF *EUSCHISTUS* DALLAS SUBGENUS *LYCIPTA* STÅL (HEMIPTERA: PENTATOMIDAE)

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Abstract.—The subgenus *Lycipta* Stål of *Euschistus* Dallas is redefined and five species, one of them new, are added to it. *Euschistus* (*Lycipta*) ***machadus***, n. sp., is described, *E.* (*L.*) *luridus* (Dallas) is transferred from *Agroecus*, and *E. aceratos* Berg is placed in the synonymy of this species. A key is given for species of the subgenus.

The subgenus *Lycipta* of the genus *Euschistus* contains ten South American species from the southern temperate zone and bordering tropics. One species, *E. cornutus* Dallas, seems to be the most abundant South American member of the genus.

Stål (1862a) proposed *Lycipta* as a genus to contain three species which earlier (1860) he had placed in *Euschistus*; but in his work on the Hemiptera of Mexico, which also appeared in 1862, he demoted *Lycipta* to subgeneric rank by describing *E.* (*Lycipta*) *spurculus*. A decade later Stål (1872) corrected his initial placement of *E. spurculus* by relocating this species in the nominate subgenus. At the same time he retrieved one of the species, now *Agroecus scabricornis* (Herrich-Schäffer), from those that he originally placed in *Lycipta* and included this species among the "species incerti generis." Also, he added three more species to the subgenus *Lycipta*. From then until now *Lycipta* has included only the five South American species assigned to it by Stål: *E. triangulator* (Herrich-Schäffer), *E. illotus* Stål, *E. cornutus* (Dallas), *E. cribrarius* Stål, and *E. picticornis* (Stål). Of the ten species under consideration, only the above five were known to Stål.

Five additional species are here added to the subgenus: *E. circumfusus* Berg, *E. imitator* Berg, *E. luridus* (Dallas), *E. machadus*, n. sp., and *E. sharpi* Bergroth. *Euschistus luridus* is transferred from *Agroecus* and is a senior synonym of *Euschistus aceratos* Berg.

Euschistus subgenus *Lycipta* Stål

Lycipta Stål, 1862a: 58.
Euschistus (*Lycipta*): Stål, 1862b: 100; Stål, 1872: 23; Kirkaldy, 1909: XXIX.

Type-species.—*Cimex triangulator* Herrich-Schäffer, 1842: 95, fig. 667 (by subsequent designation, Kirkaldy, 1909: XXIX).

Diagnosis.—Lateral walls of genital cup consisting in part of inflatable membrane located just beneath rim of cup and turning ventrad near anterior wall of cup (Fig. 11). Penisfilum coiled (Fig. 12). Thecal processes incrassate basally (Fig. 13). Spermatheca with secondary dilation at base of proximal flange; duct bent rather abruptly at proximal end of primary dilation, often with funnel shaped pigmented area enclosing base of dilation and bend of duct (Fig. 15). Apex of head incised between each jugum and tylus (Fig. 7).

Comments.—The partially membranous lateral walls of the genital cup, which appear as a white cushion when inflated, are apparently unique within *Euschistus*. The secondary dilation of the spermatheca basad of the proximal flange may also be unique to *Lycipta*, although the spermatheca of many *Euschistus* species has not been examined. However, the incisions in the apex of the head, one between each jugum and the tylus, also occur in at least some specimens of *E. quickua* Pirán and *E. rufimanus Stål.*

The spermatheca of eight of the ten species of *Lycipta* were examined, but no females of *E. cribrarius* or *E. sharpi* were available for dissection.

The subgenus is remarkable in that it contains three species pairs, each pair with virtually identical genitalia but with non-genitalic differences that are apparently consistent. While such genitalic similarity among species arouses suspicion that the forms may represent disjunct variation of a single species, a comparable situation exists within the *servus* group of *Euschistus* species in North America, and in the latter instance genetic isolation, although incomplete, has been demonstrated (Sailer, 1954). It would be desirable to subject the members of these three species pairs to tests for genetic isolation. Until such testing is done the status of the form most recently named in each pair is likely to remain in doubt. The species involved are: *luridus* and *cribrarius*; *circumfusus* and *imitator*; and *triangulator* and *picticornis*.

Key to Species of Subgenus *Lycipta*

1. Venation in membrane of hemelytra simple or branched with only 1 or 2 closed cells at most; male with conspicuous tuft of setae at posterolateral corners of genital cup in addition to scattered setae (Fig. 2) 2
– Venation in membrane of hemelytra reticulate or if not scutellum

bearing small black macule on each side of apex; setal tufts inconspicuous or absent 6

2(1). Three irregular black vittae on abdominal venter, 1 median and 1 on each side; veins in membrane of hemelytra with many short branches (Fig. 1) ..... *illotus* Stål

– Abdominal venter lacking vittae; veins in membrane of hemelytra sparsely branched 3

3(2). Margins of connexiva alternated, pale with black macules at transverse sutures ..... *machadus*, new species

– Connexiva without macules 4

4(3). Humeral angles spinose, turned obliquely forward (Fig. 16) .... *imitator* Berg

– Humeral angles obtuse 5

5(4). Denticles on anterolateral margin of pronotum red or yellow; connexiva entirely dark or with yellow margin ..... *circumfusus* Berg

– Denticles black; connexiva entirely pale ..... *sharpi* Bergroth

6(1). Apex of scutellum covered with large pale spot 7

– Apex of scutellum not strongly differentiated by color 8

7(6). Last 2 antennal segments predominately reddish; apex of scutellum usually somewhat reflexed ..... *triangulator* (Herrich-Schäffer)

– Last 2 antennal segments predominately blackish; apex of scutellum not reflexed ..... *picticornis* Stål

8(6). Humeri cornute, apically obtuse, projecting anterolaterad about as far forward as base of head (Fig. 33); apex of scutellum with small black mark on each side ..... *cornutus* Dallas

– Humeri not cornute; apex of scutellum uniformly colored 9

9(8). Humeri produced laterad of base of coria by width of eye or less, obtuse ..... *luridus* (Dallas)

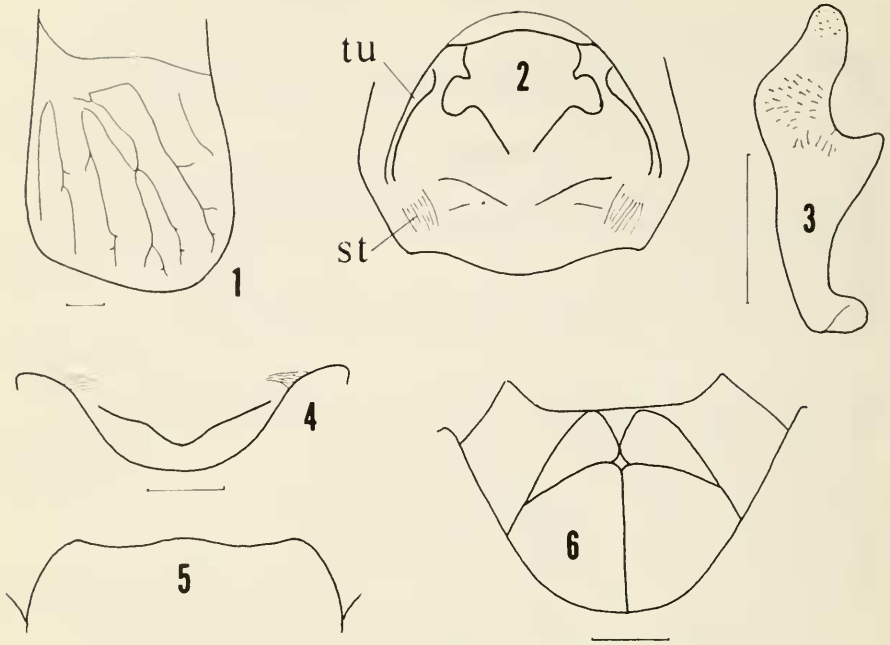
– Humeri produced laterad of base of coria by about 1.5× width of eye, acute ..... *cribrarius* Stål

Euschistus (*Lycipta*) *illotus* Stål

Figs. 1–6

Euschistus illotus Stål, 1860: 19.
Lycipta illotus: Stål, 1862a: 58 (listed).
Euschistus (*Lycipta*) *illotus:* Stål, 1872: 24 (keyed, descriptive note).

Veins in hemelytral membranes with many short branches but forming few or no closed cells (Fig. 1). Three irregular vittae present on abdominal venter, 1 median (sometimes tenuous) and 2 lateral, formed by black patches. Gonocoxae 2 not evident (Fig. 6). Emargination in posterior pygophoral margin broad and moderately deep from caudal view (Fig. 4),



Figs. 1–6. *Euschistus* (*L.*) *illotus*. 1, Membrane of right hemelytron. 2, Genital cup, proctiger and parameres removed; tuft of setae (st); tumescence (tu). 3, Paramere. 4, Posterior pygophoral margin, caudal view. 5, Same, ventral view. 6, Genital plates, caudoventral view. Dimensional lines equal 0.5 mm.

sinuous from both ventral and dorsal views (Figs. 2, 5). Cup of paramere densely setose, apex minutely ridged (Fig. 3).

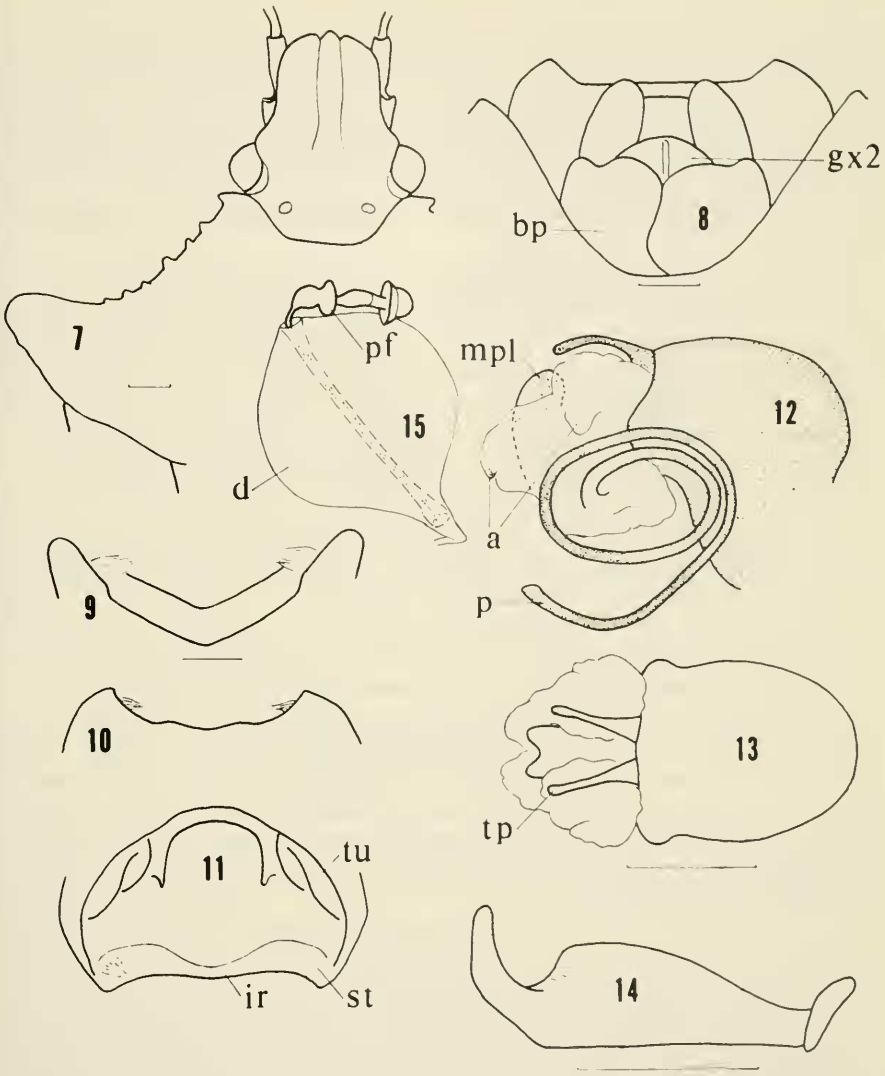
Distribution.—Argentina (Misiones); Brazil (Espirito Santo, Mato Grosso, São Paulo, Santa Catarina, Rio de Janeiro); Paraguay; Bolivia.

Comment.—The holotype was examined.

Euschistus (*Lycipta*) *machadus* Rolston, New Species
Figs. 7–15

Light yellowish brown above, becoming reddish yellow on humeri; punctures rather small and evenly distributed, black in clusters on each side of calloused spot at posterior margin of each cicatrice, along anterolateral pronotal margins, especially on anterior humeral margins, and at posterior margin of ocelli, concolorous on humeral apex, otherwise dark brown to fuscous; each side of scutellar apex with black spot. Ventral surfaces as dark as or a little darker than dorsum; punctation fuscous to black, very dense on abdomen. Length of body 10.1–11.5 mm.

Width and length of head subequal, 2.1–2.4 mm wide at eyes, lateral



Figs. 7–15. *Euschistus* (*L.*) *machadus*. 7, Head and pronotum. 8, Genital plates; caudoventral view; basal plates (bp); second gonocoxae (gx 2). 9, Posterior margin of pygophore, caudal view. 10, Same, ventral view. 11, Genital cup, parameres and proctiger removed; inferior ridge (ir); tuft of setae (st); tumescence (tu). 12, Aedeagus, lateral view; conjunctival appendage (a); penisfilum (p); median penal lobes (mpl). 13, Aedeagus, dorsal view; thecal processes (tp). 14, Paramere. 15, Spermatheca; proximal flange (pf); dilation of spermathecal duct (d).

margins subparallel for middle ⅓ of distance from eyes to apex; juga and tylus subequal in length, separated at apex by shallow incision between each (Fig. 7). Basal antennal segment pale with black spots usually coalescing into streak on dorsal and ventral surfaces, remaining segments black except basal $^1/_4$ of last and usually basal $^1/_8$ of 4th pale; basal segment reaching apex of head; length of segments 0.6–0.7; 0.9–1.1; 1.0–1.1; 1.2–1.5; 1.4–1.7 mm. Bucculae subtruncate at base of head, surpassing slightly basal segment of rostrum.

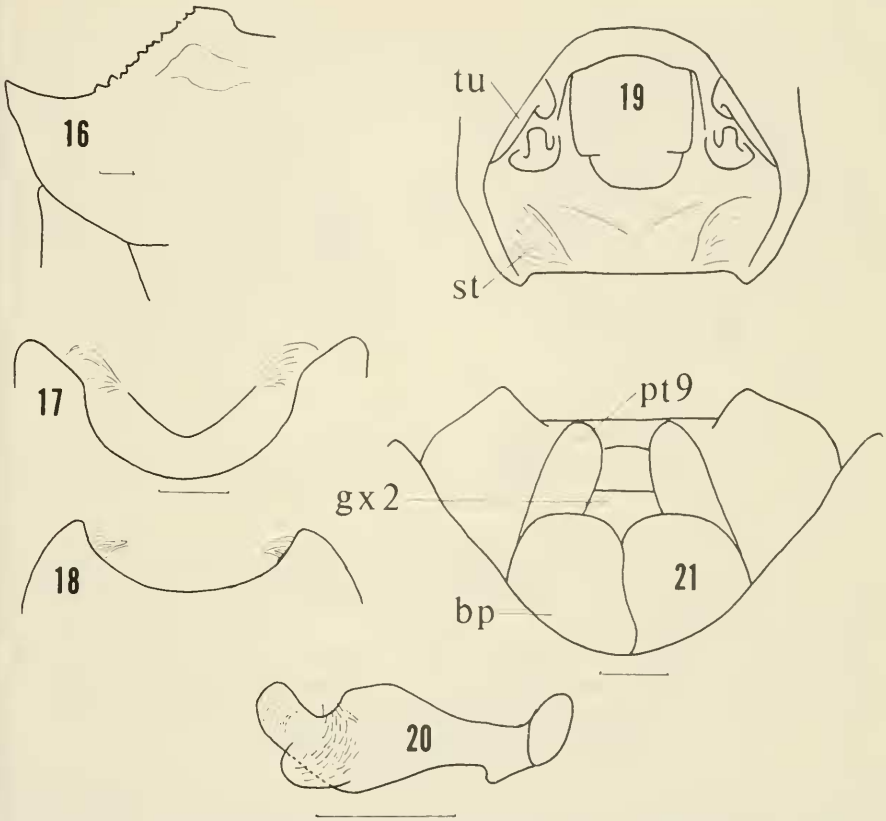
Pronotum 2.3–2.7 mm long at meson, 2.7–3.0 times as wide at humeri. Anterolateral margins concavely arcuate, denticulate onto humeri; denticles obtuse, well separated from each other, yellowish brown. Humeral angles produced moderately laterad, slightly cephalad, a little elevated; apex narrowly rounded. Disk slightly rugose; cluster of black punctures laterad of calloused spot at posterior border of each cicatrice larger than mesal cluster, subcircular, sometimes subfoveate; mesial cluster linear, rarely lacking.

Scutellar width and length subequal, 3.6–4.2 mm across base; fovea in basal angles moderately large and deep, black; apex slightly depressed between marginal black spot on each side, sometimes weakly emarginate. Membrane of hemelytra hyaline; venation light brown, usually with a few closed cells. Connexivum moderately exposed, concolorous with corium excepting black marginal spot on each side of segmental sutures and between these a smaller black spot on protruding apical angle of sternite.

Evaporative areas small for genus, extending about 0.4 distance from ostiole to lateral margin of metapleuron; sparingly black punctate. Large black spots on femora and tibiae, many coalescing on femora; tarsi fuscous to black usually excepting superior face of basal segment. Apical angles of abdominal sternites produced into small obtuse tubercle, black at apex; basal angles with larger black spot. Spiracles concolorous with or darker than supporting sternum.

Broad emargination in posterior margin of pygophore irregularly concave from both caudal and ventral views, shallowly so from dorsal view (Figs. 9, 10, 11). Inferior ridge entirely exposed from caudal view. Large tubercle on each side on posterior border of genital cup bearing dense tuft of setae; large pale tumescence on lateral walls of genital cup paralleling rim for most its length, bending abruptly ventrad anteriorly. Parameres terminating in rather thin simple hook (Fig. 14). Conjunctiva with 2 appendages on each side; apex of appendage nearest median penal lobes subacute, sclerotized; other appendage hyaline (Fig. 12). Penisfilum coiled, making about 2 complete loops. Median penal lobes projecting dorsad at apex. Lateral lobes of theca moderately developed, median lobe obscure.

Holotype.—♂, labeled Brazil, São Paulo, Serra Bocaina, S. J. Barreiro, 1650 m. (b) Oct.–Nov. 1969, Alvarenga and Seabra. Deposited in American Museum of Natural History, New York.



Figs. 16–21. *Euschistus* (*L.*) *imitator*. 16, Humeral angle. 17, Posterior pygophoral margin, caudal view. 18, Same, ventral view. 19, Genital cup, parameres and proctiger removed; tuft of setae (st); tumescence (tu). 20, Paramere. 21, Genital plates, caudoventral view; basal plates (bp); 9th paratergites (pt 9); 2nd gonocoxae (gx 2).

Paratypes.—10 ♂, 23 ♀. Same data as holotype (♂, ♀ LHR; ♂, ♀ UNLP; ♂, ♀ USNM; ♂, ♀ NR; ♂, ♀ BMNH; ♂, 8 ♀ AMNH); same data as holotype except Nov. 1968, M. Alvarenga (♂ TAMU; ♂, ♀ LHR; 6 ♂ AMNH) same data as holotype except Jan. 1969, M. Alvarenga (♀ AMNH); Italiaya, 1100 m, E. do Rio, 30-XI-42, W. Zikan (♂ RNH); "Itatiaia," 1960 m, N. B. Fagundes, 1-933 (♀ RNH); "Itatiaia," N. B. Fagundes, 1-933 (♂ RNH); Bananal, Bocaina, S. Paulo, D. Mendes, 1-937 (♀ RNH).

Deposition of paratypes.—American Museum of Natural History, New York (AMNH); British Museum (Natural History), London (BMNH); author's collection (LHR); Naturhistoriska Riksmuseet, Stockholm, Sweden (NR); Rijksmuseum van Naturlijke Historie, Leiden, Netherlands (RNH); Texas A&M University, College Station (TAMU); Universidad Nacional de

Figs. 22, 23. *Euschistus* (*L.*) *circumfusus*. 22, Humerus and anterolateral margin of the pronotum. 23, Paramere.

LaPlata, Argentina (UNLP); National Museum of Natural History, Washington, D.C. (USNM).

Distribution.—Southern Brazil in states of Mato Grosso, São Paulo, and Rio Grande do Sul, and presumably in states of Santa Catarina and Paraná.

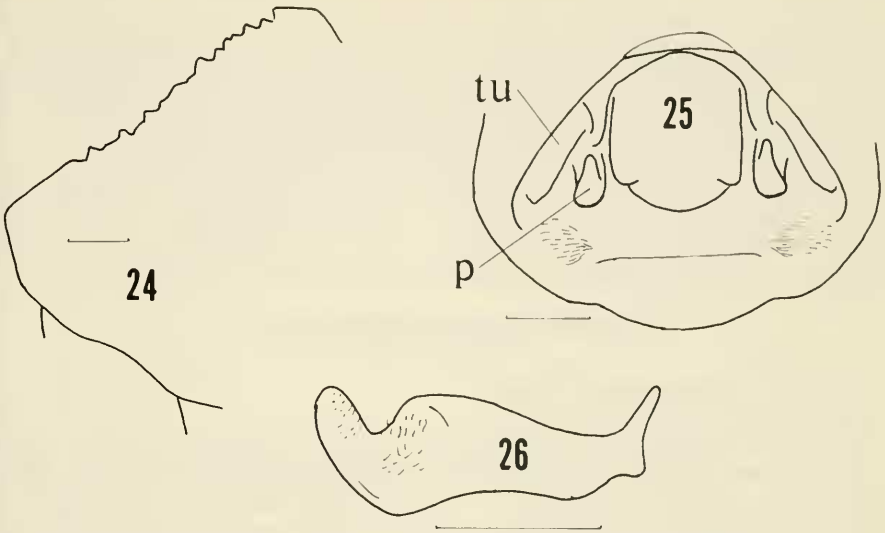
Euschistus (*Lycipta*) *imitator* Berg
Figs. 16–21

Euschistus imitator Berg, 1878: 306; Berg, 1879: 45–46 (reprint); Pirán, 1948: 11 (record); Pirán, 1968: 19, fig. 1G (record, pygophore).

Euschistus sellowi Berg, 1883: 208–209; Berg, 1884: 24–25 (reprint). **New Synonymy.**

Humeral angles moderately produced laterad, acute, directed anterolaterad (Fig. 16). Connexiva broadly margined laterally with brownish yellow to castaneous. Abdominal venter brownish yellow or rufous; dark punctation usually becoming sparse mesially. Veins in hemelytral membranes simple or branched, sometimes with 1 or 2 closed cells basally. Posterior margin of basal plates mesially and mesial margin of 9th paratergites much thickened, leaving 2nd gonocoxae sunken (Fig. 21). Emargination in posterior pygophoral margin broad, concave, moderately deep from both caudal and ventral view (Figs. 17, 18), shallow and transverse from dorsal view (Fig. 19). A large tuft of setae located on prominence at posterolateral corners of genital cup. Parameres as in Fig. 20.

Distribution.—Argentina (Buenos Aires, Entre Rios, Santa Fé); Brazil (Rio Grande do Sul, Santa Catarina); Paraguay; Uruguay.



Figs. 24–26. *Euschistus* (*L.*) *sharpi*. 24, Humerus and anterolateral pronotal margin. 25, Genital cup; paramere (p); tumescence (tu). 26, Paramere.

Types.—The following specimen is designated **lectotype** of *Euschistus sellowi*: male, labeled (a) "*Euschistus selowianus* Berg Typen!," (b) "Typus," (c) "Zoolog. Museum Berlin," (d) "1010," (e) "Montevideo Sello." Three female paralectotypes are all labeled (a) "Typus" (b) "Montevideo Sellow No. 1010" (c) "Zoolog. Museum, Berlin." All 4 specimens are in the Museum für Naturkunde der Humboldt—Universität zu Berlin. These specimens and the holotype of *Euschistus imitator* Berg were examined.

Euschistus (*Lycipta*) *circumfusus* Berg
Figs. 22, 23

Euschistus circumfusus Berg, 1883: 208; Berg, 1884: 24 (reprint); Buckup, 1961: 10 (record).

Dorsum fuscous with lateral margins of pronotum and basal margins of coria yellow or red. Connexiva entirely dark or yellow margined. Abdominal venter dark brown, densely and uniformly black punctate. Humeri scarcely produced laterad, obtusely angulate (Fig. 22). Venation of hemelytral membrane simple or furcate, sometimes with 1 or 2 closed cells basally. Genital plates and pygophore as in *L. imitator*. Parameres as in Fig. 23.

Distribution.—Argentina (Entre Rios); Brazil (Santa Catarina, Rio Grande do Sul); Paraguay; Uruguay.

Types.—The following specimen is designated **lectotype**: Male, labeled

(a) "Euschistus circumfusus typen! Berg" (b) "Typus" (c) "Zoolog. Museum Berlin" (d) "795" (e) "Montevideo, Sell." The 3 paralectotypes, 2 ♀, 1 ♂, are all labeled (a) "Typus" (b) "Montevideo, Sellow no. 795" (c) "Zoolog. Museum Berlin." All 4 specimens are in the Museum für Naturkunde der Humboldt—Universität zu Berlin and were examined.

Comments.—The genitalia of this species and of *E. imitator* seem inseparable excepting perhaps minor differences in the parameres. In the relatively few specimens of *E. circumfusus* and *E. imitator* that have been available, differences in the humeral form and color have been consistent.

Euschistus (*Lycipta*) *sharpi* Bergroth
Figs. 24–26

Euschistus sharpi Bergroth, 1891: 223.

Dorsum including anterolateral pronotal margins fuscous to black, only posterolateral margins of humeri, basal portion of coria along margin, and entire connexiva pale. Abdominal venter brownish yellow with small punctures rather weakly and uniformly dark colored. Humeri weakly produced laterad, obtusely angled (Fig. 24). Venation in membrane of hemelytra simple or furcate. Posterior margin of pygophore sinuously convex from dorsal view. A tuft of setae present at posterolateral corners of genital cup (Fig. 25). Parameres as in Fig. 26.

Distribution.—Brazil (Minas Gerais, São Paulo).

Type.—The type is apparently missing from the Fallou collection.

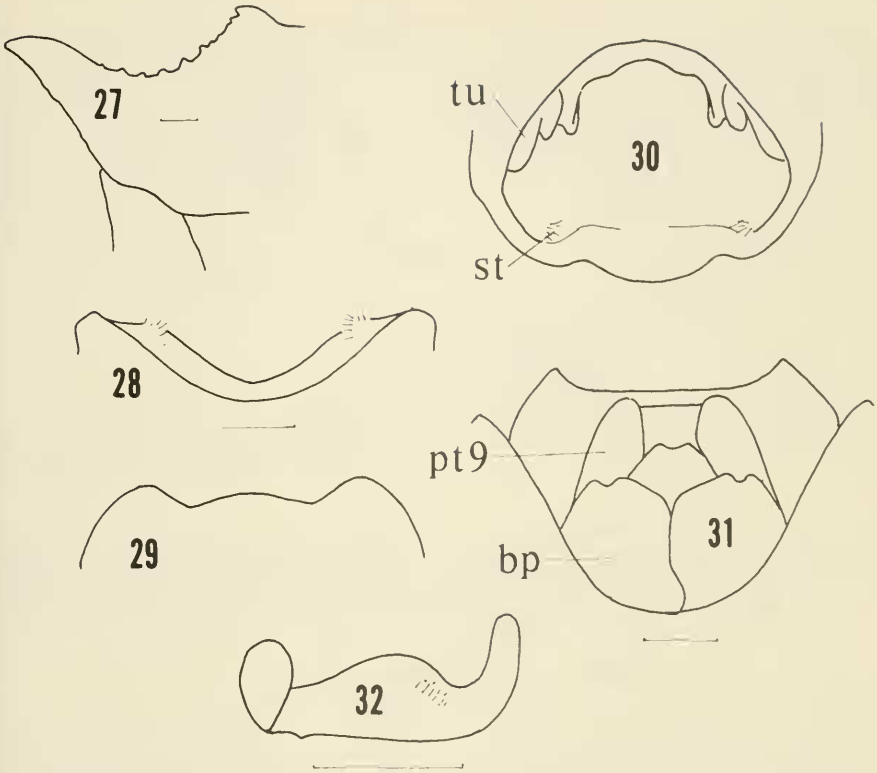
Comment.—This species closely resembles *E. circumfusus* but differs in having the anterolateral pronotal margins black, in the punctation and coloration of the abdominal venter, in the uniformly pale connexiva, and in the convexity of the posterior pygophoral margin when viewed dorsally.

I have seen no females of this species.

Euschistus (*Lycipta*) *triangulator* (Herrich-Schäffer)
Figs. 27–32

Cimex triangulator Herrich-Schäffer, 1842: 95–96, fig. 667.
Euschistus triangulator: Stål, 1860: 19 (listed).
Lycipta triangulator: Stål, 1862a: 58 (listed).
Euschistus (*Lycipta*) *triangulator:* Stål, 1872: 23 (keyed).

Veins of hemelytral membrane reticulate. Apex of scutellum ivory, usually somewhat reflexed. At least last 2 segments of antenna rufous, occasionally pale at base. Humeri strongly projecting anterolaterad, acute apically (Fig. 27). Posterior margin of basal plates emarginate at base of 9th parategites, mesially thickened; mesial margin of one basal plate overlapping other basally (Fig. 31). Posterior margin of pygophore trisinuate from dorsal



Figs. 27–32. *Euschistus* (*L.*) *triangulator*. 27, Humerus and anterolateral pronotal margin. 28, Posterior pygophoral margin, caudal view. 29, Same ventral view. 30, Genital cup, parameres and pygophore removed; tuft of setae (st); tumescence (tu). 31, Genital plates, caudoventral view; basal plates (bp); 9th paratergites (pt 9). 32, Paramere.

and ventral views (Figs. 29, 30), broadly concave from caudal view (Fig. 28); setae tuft in posterolateral corners of genital cup inconspicuous amongst other setae in cup.

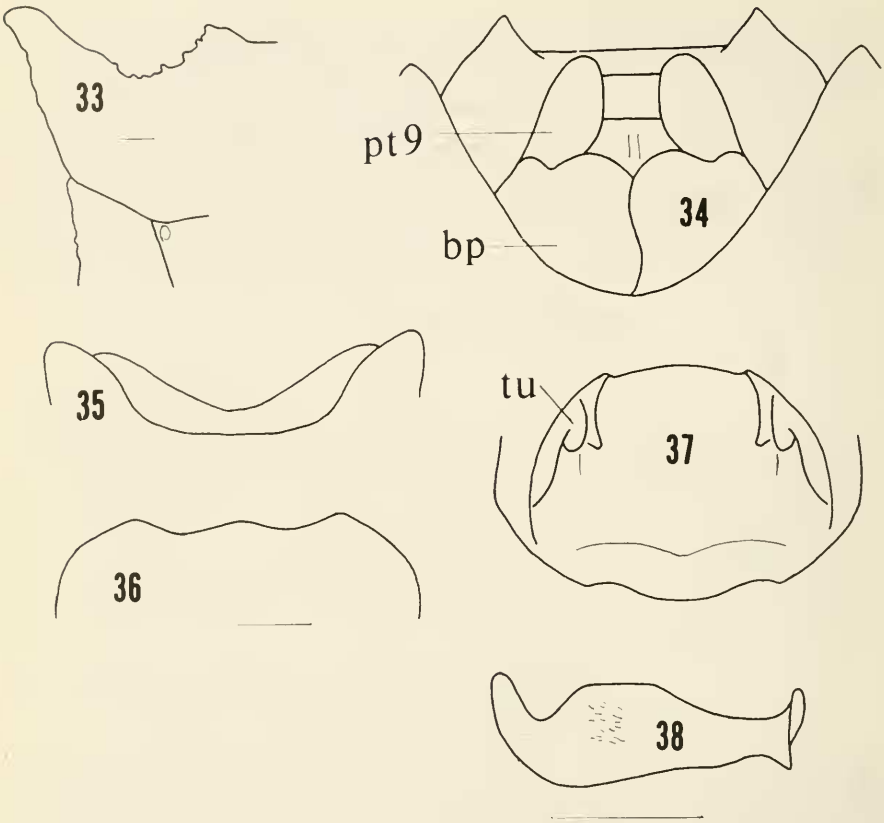
Distribution.—Brazil (Santa Catarina, São Paulo, Rio de Janeiro).

Comment.—This species and the following one, *E. picticornis*, apparently differ consistently only in the color of the antennae.

The type was not located. My concept of this species is based on the literature.

Euschistus (*Lycipta*) *picticornis* Stål

Euschistus (*Lycipta*) *picticornis* Stål, 1872: 23.
Euschistus picticornis: Berg, 1879: 280–281 (nymph described); Berg, 1880:



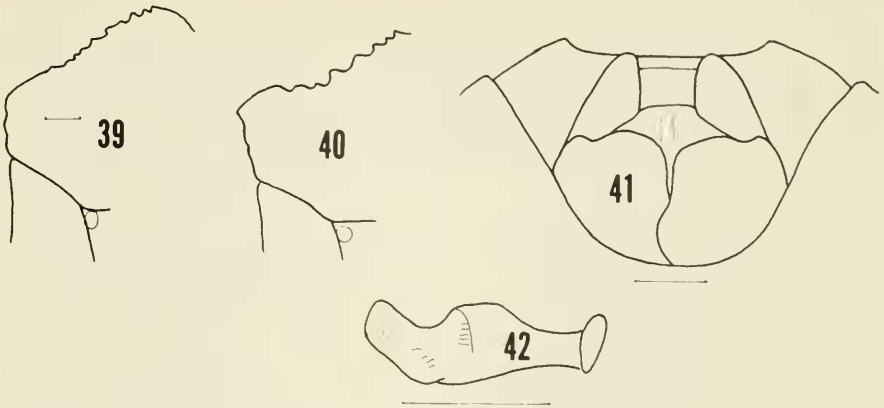
Figs. 33–38. *Euschistus* (*L.*) *cornutus*. 33, Humerus and anterolateral pronotal margin. 34, Genital plates, caudoventral view; basal plates (bp); 9th paratergites (pt 9). 35, Posterior margin of pygophore, caudal view. 36, Same, ventral view. 37, Genital cup, proctiger and parameres removed; tumescence (tu). 38, Paramere.

8–9 (reprint); Berg, 1883: 206–208 (description); Berg, 1884: 22–24 (reprint); Pirán, 1948: 11 (record); Buckup, 1961: 11 (record); Grazia, 1977: 165–166.

Apparently differing consistently from *E. triangulator* only in rufous color of antenna, especially last 2 segments. Apex of scutellum not reflexed. Dorsum usually a little darker in color than in *E. triangulator*.

Distribution.—Argentina (Buenos Aires, Parana de las Palmas, Sierra de Cordoba); Brazil (Rio Grande do Sul, Santa Catarina, São Paulo).

Comments.—Berg (1883, 1884) listed a number of characters in which *E.*



Figs. 39–42. *Euschistus* (*L.*) *luridus*. 39–40, Variation in humeri. 41, Genital plates, caudoventral view. 42, Paramere.

picticornis and *E. triangulator* purportedly differ. None of these characters, unfortunately, consistently differentiates between these species.

The holotype of *E. picticornis* was examined.

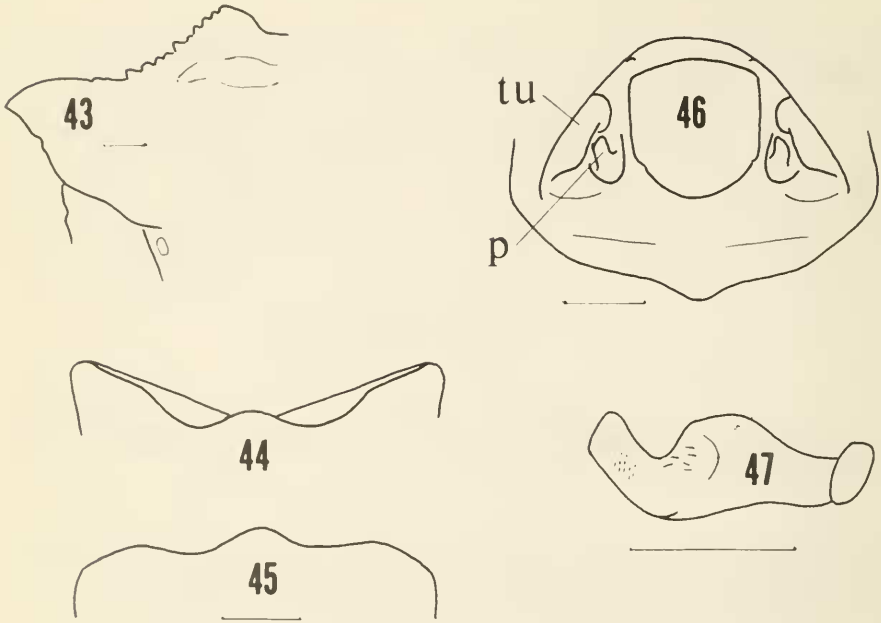
Euschistus (*Lycipta*) *cornutus* (Dallas)
Figs. 33–38

Euschistus cornutus Dallas, 1851: 201; Berg, 1878: 303–305 (description); Berg, 1879: 42–44 (reprint); Bergroth, 1891: 223 (descriptive note); Jensen-Haarup, 1922: 11, figs. 2a, 2b (habitus); Buckup, 1961: 11 (record); Pirán, 1962: 6, 9, fig. 6 (pygophore).

Euschistus (*Lycipta*) *cornutus:* Stål, 1872: 23 (keyed).

Veins of hemelytral membrane usually reticulated. Apex of scutellum with a small dark marginal macule on each side. Humeri cornute, projecting anterolaterad, narrowly rounded at apex (Fig. 33). Dorsum yellowish brown, humeri rufous. Costal margin of hemelytra toward base with small denticles. Posterior margin of basal plates emarginate at base of 9th paratergites, thickened mesially; mesial margin of one basal plate overlapping other basally; 2nd gonocoxae sulcate along meson (Fig. 34). Posterior margin of pygophore broadly emarginate to moderate depth from caudal view (Fig. 35), less deeply emarginate and with bottom of emargination slightly convex from ventral view (Fig. 36), sinuous from dorsal view (Fig. 37). Setal tufts absent. Paramere as in Fig. 38.

Distribution.—Argentina (Misiones); Brazil (Rio Grande do Sul, Santa Catarina, Minas Gerais); Paraguay.



Figs. 43–47. *Euschistus* (*L.*) *cribrarius*. 43, Humerus. 44, Posterior margin of pygophore, caudal view. 45, Same, ventral view. 46, Genital cup; paramere (p); tumescence (tu). 47, Paramere.

Comments.—This common species resembles *E. machadus* in coloration, but the cornute humeri of *E. cornutus* separate these two species at a glance. The type was examined.

Euschistus (*Lycipta*) *luridus* (Dallas), New Combination

Figs. 39–42

Agroecus luridus Dallas, 1851: 200; Jensen-Haarup, 1937: 171 (keyed); Buckup, 1961: 8, 11, Pl. 1 fig. 1, Pl. 2 fig. 1 (keyed, synonymy, description).

Euschistus aceratos Berg, 1894: 17. **New synonymy.**

Veins in membrane of hemelytra reticulate. Apex of scutellum not differentiated by color or punctation. Humeri obtuse, produced laterad of base of coria by width of eye or less (Figs. 39, 40). Genital plates (Fig. 41) similar to those of *E. cornutus* (Fig. 34). Posterior margin of pygophore like that of *E. cribrarius* (Figs. 44–46). Setal tufts absent. Pigmentation of parameres disappearing basad of cup (Fig. 42).

Distribution.—Argentina (Misiones); Brazil (Rio Grande do Sul, Santa Catarina, Minas Gerais); Bolivia.

Comment.—This species and *E. cribrarius* seem to differ only in the form of the humeri and in minor differences in the parameres.

The types of *Agroecus luridus* and *Euschistus aceratos* were examined.

Euschistus (*Lycipta*) *cribrarius* Stål

Figs. 43–47

Euschistus (*Lycipta*) *cribrarius* Stål, 1872: 24 (keyed).

Differing from *E. luridus* in form of humeri and pigmentation of parameres. Humeri produced laterad of base of coria by about 1.5× width of eye, apically acute and slightly retrorse (Fig. 43). Posterior margin of pygophore broadly and sinuously concave from caudal view (Fig. 44) sinuous from ventral view (Fig. 45), convex with median projection from dorsal view (Fig. 46). Paramere pigmented to basal disk (Fig. 47).

Distribution.—Brazil (Rio de Janeiro); Bolivia.

Comments.—The only substantial and apparently consistent difference that I see between *E. cribrarius* and *E. luridus* is the form of the humeri, which in many species of the genus, but by no means all of them, is notoriously variable. I have seen few males and no females of *E. cribrarius*, all uniform with respect to their humeri, and about a score of *E. luridus*, the humeri of none approaching the form of *E. cribrarius*.

The holotype was examined.

Acknowledgments

Type-specimens for this study were graciously loaned by W. R. Dolling, British Museum (Natural History), London; U. Göllner-Scheiding, Museum für Naturkunde der Humboldt—Universität zu Berlin, East Germany; Per Inge Persson, Naturhistoriska Riksmuseet, Stockholm, Sweden; and Luis de Santis, Universidad Nacional de La Plata, Facultad de Ciencias Naturales y Museo, Argentina.

Richard C. Froeschner, National Museum of Natural History, Washington, D.C., offered valuable suggestions for improving the manuscript.

Literature Cited

Berg, C. 1878–80. Hemiptera Argentina enumeravit speciesque novas descripsit. An. Soc. Cient. Argent. 5(6): 297–314 (1878); 9(1): 5–22 (1880). Reprinted 1879. Buenos Aires and Hamburg. 316 pp. (Berg's papers under this title in the Anales de la Sociedad Cientifica Argentina were published as a book in December, 1879. The papers in this series that appeared in the Anales in 1880 (vol. 9, no. 1) were also included, and presumably first published, in the book.)

———. 1883. Addenda et emendanda ad Hemiptera Argentina. An. Soc. Cient. Argent. 15: 193–217. (Reprinted 1884. Buenos Aires and Hamburg. 213 pp.)

———. 1894. Descripciones de algunos Hemipteros Heteropteros nuevos o poco conocidos. An. Mus. Montev. 1: 13–17.

Bergroth, E. 1891. Contributions à l'étude des pentatomides. Rev. Entomol. 10: 200–235.
Buckup, L. 1961. Os pentatomideos do estado do Rio Grande do Sul (Brasil) (Hemiptera-Heteroptera-Pentatomidae). Iheringia Ser. Zool. 16: 5–23.
Dallas, W. S. 1851. List of the specimens of hemipterous insects in the collection of the British Museum. Part 1. London.
Grazia, J. 1977. Revisão dos pentatomineos citados no "Quarto Catalogo dos Insetos Que Viven nas Plantos do Brasil" (Hemiptera-Pentatomidae-Pentatomini). Dusenia 10(3): 161–174.
Herrich-Schäffer, G. A. W. 1842. Die Wanzenartigen Insecten. Vol. 6, 118 pp., 34 pls.
Jensen-Haarup, A. C. 1922. Hemipterological notes and descriptions II. Entomol. Medd. Copenhagen 14: 1–16.
———. 1937. Einige neue Pentatomidenarten aus der Sammlung des Zoologischen Museums in Hamburg (Hem. Het.) Entomol. Rundschau 54: 169–171, 321–324.
Kirkaldy, G. W. 1909. Catalogue of the Hemiptera (Heteroptera) Vol. 1. Cimicidae. XL + 392 pp.
Pirán, A. A. 1948. Contribución al conocemiento de la dispersión geográphica de los Hemípteros neotropicales. Acta Zool. Lilloana 5: 5–17.
———. 1968. Hemiptera neotropica. XI. Rev. Soc. Entomol. Argent. 30: 17–25.
Sailer, R. I. 1954. Interspecific hybridization among insects with a report on cross breeding experiments with stink bugs. J. Econ. Entomol. 47: 377–383.
Stål, C. 1860–62a. Bidrag till Rio Janeiro-traktens Hemipter-fauna. K. Svenska Vet.-Ak. Handl. 2(7): 1–84 (1860); 3(6): 1–75 (1862).
———. 1862b. Hemiptera Mexicana enumeravit speciesque novas descripsit. Stettin. Entomol. Ztg. 23: 81–118.
———. 1872. Enumeratio Hemipterorum. Enumeratio Cimicinorum Americae. K. Svenska Vet.-Ak. Handl. 10(4): 3–65.